

**In the Claims:**

1-34 (canceled)

35. (currently amended) A method of making a package containing a substantially hydrogen-free interior which comprises the steps of:

- (a) providing a package having a hollow interior region;
- (b) providing a hydrogen degradable semiconductor device material within said hollow interior;
- (c) forming a hydrogen permeable layer onto a surface of said package;
- (d) then ~~removing the support on said package for said hydrogen permeable membrane to form~~ forming a vent through said package from said hollow interior region to the exterior of said package through said membrane to form; a hydrogen permeable layer over said vent.

36. (previously presented) The method of claim 35 wherein said hydrogen permeable layer is a layer of palladium.

37-38 (canceled).

39. (previously presented) The method of claim 37 wherein said device is a gallium arsenide semiconductor.

40. (previously presented) The method of claim 38 wherein said device is a gallium arsenide semiconductor.

41. (previously presented) The method of claim 40 further including the step of placing said package in an environment where the concentration of hydrogen is less than the concentration of hydrogen in said hollow region.

42-44 (canceled)

45. (previously presented) The method of claim 35 wherein said hydrogen permeable layer is formed by plating.

46. (previously presented ) The method of claim 35 wherein said step of removing the support on said package is provided by etching said package.

47. (previously presented ) The method of claim 36 wherein said hydrogen permeable layer is formed by plating.

48. (previously presented ) The method of claim 36 wherein said step of removing the support on said package is provided by etching said package.

49. (previously presented) The method of claim 39 wherein said hydrogen permeable layer is formed by plating.

50. (previously presented) The method of claim 39 wherein said step of removing the support on said package is provided by etching said package.

51. (previously presented) The method of claim 40 wherein said hydrogen permeable layer is formed by plating.

52. (previously presented) The method of claim 40 wherein said step of removing the support on said package is provided by etching said package.

53. (previously presented) The method of claim 41 wherein said hydrogen permeable layer is formed by plating.

54. (previously presented) The method of claim 41 wherein said step of removing the support on said package is provided by etching said package.